

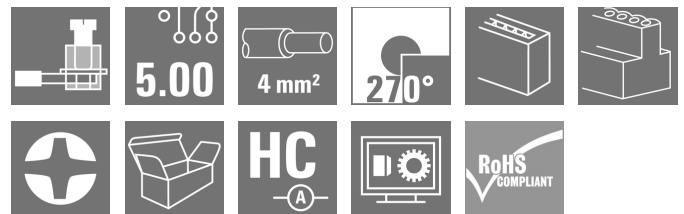
**BLZP 5.00HC/12/270 SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

**General ordering data**

|              |   |
|--------------|---|
| Version      | PCB plug-in connector, female plug, 5.00 mm, Number of poles: 12, 270°, Clamping yoke connection, Clamping range, max. : 4 mm², Box |
| Order No.    | <a href="#">1959000000</a>  |
| Type         | BLZP 5.00HC/12/270 SN BK BX   |
| GTIN (EAN)   | 4032248637935   |
| Qty.         | 30 pc(s).   |
| Product data | IEC: 400 V / 23 A / 0.2 - 4 mm²<br>UL: 300 V / 20 A / AWG 26 - AWG 12   |
| Packaging    | Box   |

Creation date August 24, 2024 5:07:49 AM CEST

Catalogue status 17.08.2024 / We reserve the right to make technical changes.

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**Technical data****Dimensions and weights**

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Depth      | 27.2 mm  | Depth (inches)  | 1.071 inch |
| Height     | 14.1 mm  | Height (inches) | 0.555 inch |
| Width      | 60 mm    | Width (inches)  | 2.362 inch |
| Net weight | 23.433 g |                 |            |

**System Parameters**

|  |  |                   |   |
|--|--|-------------------|---|
| Product family                               | OMNIMATE Signal - series BL/SL 5.00    |                   |   |
| Type of connection                           | Field connection                       |                   |   |
| Wire connection method                       | Clamping yoke connection               |                   |   |
| Pitch in mm (P)                              | 5 mm                                   |                   |   |
| Pitch in inches (P)                          | 0.197 "                                |                   |   |
| Conductor outlet direction                   | 270°                                   |                   |   |
| Number of poles                              | 12                                     |                   |   |
| L1 in mm                                     | 55 mm                                  |                   |   |
| L1 in inches                                 | 2.167 "                                |                   |   |
| Number of rows                               | 1                                      |                   |   |
| Pin series quantity                          | 1                                      |                   |   |
| Rated cross-section                          | 4 mm <sup>2</sup>                      |                   |   |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch                 |                   |   |
| Touch-safe protection acc. to DIN VDE 0470   | IP20 plugged/ IP10 unplugged           |                   |   |
| Protection degree                            | IP20                                   |                   |   |
| Volume resistance                            | ≤5 mΩ                                  |                   |   |
| Can be coded                                 | Yes                                    |                   |   |
| Stripping length                             | 7 mm                                   |                   |   |
| Clamping screw                               | M 2.5                                  |                   |   |
| Screwdriver blade                            | 0.6 x 3.5, PH 1, PZ 1                  |                   |   |
| Screwdriver blade standard                   | DIN 5264, ISO 8764/2-PH, ISO 8764/2-PZ |                   |   |
| Plugging cycles                              | 25                                     |                   |   |
| Plugging force/pole, max.                    | 10 N                                   |                   |   |
| Pulling force/pole, max.                     | 9 N                                    |                   |   |
| Tightening torque                            | Torque type                            | Wire connection   |   |
|  | Usage information                      | Tightening torque | <div>min. 0.4 Nm</div> <div>max. 0.5 Nm</div> |

**Material data**

|                                       |          |                                       |                            |
|---------------------------------------|----------|---------------------------------------|----------------------------|
| Insulating material                   | PBT      | Colour                                | black                      |
| Colour chart (similar)                | RAL 9011 | Insulating material group             | IIIa                       |
| Comparative Tracking Index (CTI)      | ≥ 200    | Insulation strength                   | ≥ 10 <sup>8</sup> Ω        |
| UL 94 flammability rating             | V-0      | Contact material                      | Cu-alloy                   |
| Contact surface                       | tinned   | Layer structure of plug contact       | 4...8 µm Sn hot-dip tinned |
| Storage temperature, min.             | -40 °C   | Storage temperature, max.             | 70 °C                      |
| Operating temperature, min.           | -50 °C   | Operating temperature, max.           | 100 °C                     |
| Temperature range, installation, min. | -25 °C   | Temperature range, installation, max. | 100 °C                     |

**Conductors suitable for connection**

|   |                      |
|---|----------------------|
| Clamping range, min.                    | 0.13 mm <sup>2</sup> |
| Clamping range, max.                    | 4 mm <sup>2</sup>    |
| Wire connection cross section AWG, min. | AWG 30               |

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**Technical data**

|   |  |                              |                         |      |
|---|--|------------------------------|-------------------------|------|
| Wire connection cross section AWG, max.                 | AWG 12   |                              |                         |      |
| Solid, min. H05(07) V-U                                 | 0.2 mm²  |                              |                         |      |
| Solid, max. H05(07) V-U                                 | 4 mm²  |                              |                         |      |
| Flexible, min. H05(07) V-K                              | 0.2 mm²  |                              |                         |      |
| Flexible, max. H05(07) V-K                              | 4 mm²  |                              |                         |      |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm² min. |  |                              |                         |      |
| w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm² max. |  |                              |                         |      |
| w. wire end ferrule, DIN 46228 pt 1, min.               | 0.2 mm²  |                              |                         |      |
| w. wire end ferrule, DIN 46228 pt 1, max.               | 4 mm²  |                              |                         |      |
| Plug gauge in accordance with EN 60999 a x b; ø         | 2.8 mm x 2.4 mm  |                              |                         |      |
| Clampable conductor                                     | Cross-section for conductor connection   | Type                         | fine-wired              |      |
|   |  | nominal                      | 0.5 mm²                 |      |
|   | wire end ferrule   | Stripping length             | nominal                 | 6 mm |
|   |  | Recommended wire-end ferrule | <a href="#">H0.5/6</a>  |      |
|   | Cross-section for conductor connection   | Type                         | fine-wired              |      |
|   |  | nominal                      | 1 mm²                   |      |
|   | wire end ferrule   | Stripping length             | nominal                 | 6 mm |
|   |  | Recommended wire-end ferrule | <a href="#">H1.0/6</a>  |      |
|   | Cross-section for conductor connection   | Type                         | fine-wired              |      |
|   |  | nominal                      | 1.5 mm²                 |      |
|   | wire end ferrule   | Stripping length             | nominal                 | 7 mm |
|   |  | Recommended wire-end ferrule | <a href="#">H1.5/7</a>  |      |
|   | Cross-section for conductor connection   | Type                         | fine-wired              |      |
|   |  | nominal                      | 2.5 mm²                 |      |
|   | wire end ferrule   | Stripping length             | nominal                 | 7 mm |
|   |  | Recommended wire-end ferrule | <a href="#">H2.5/7</a>  |      |
|   | Cross-section for conductor connection   | Type                         | fine-wired              |      |
|   |  | nominal                      | 0.75 mm²                |      |
|   | wire end ferrule   | Stripping length             | nominal                 | 6 mm |
|   |  | Recommended wire-end ferrule | <a href="#">H0.75/6</a> |      |
| Reference text  | The outside diameter of the plastic collar should not be larger than the pitch (P), Length of ferrules is to be chosen depending on the product and the rated voltage. |                              |                         |      |

**Rated data acc. to IEC**

|   |                        |   |                   |
|---|------------------------|---|-------------------|
| tested acc. to standard   | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C)                         | 23 A              |
| Rated current, max. number of poles (Tu=20°C)                             | 18 A                   | Rated current, min. number of poles (Tu=40°C)                         | 21 A              |
| Rated current, max. number of poles (Tu=40°C)                             | 16 A                   | Rated voltage for surge voltage class / pollution degree II/2         | 400 V             |
| Rated voltage for surge voltage class / pollution degree III/2            | 320 V                  | Rated voltage for surge voltage class / pollution degree III/3        | 250 V             |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 4 kV                   | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 4 kV              |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 4 kV                   | Short-time withstand current resistance                               | 3 x 1s with 120 A |

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**Technical data****Rated data acc. to CSA**

Institute (CSA)



Certificate No. (CSA)

200039-1121690

Rated voltage (Use group B / CSA) 300 V

Rated voltage (Use group C / CSA) 50 V

Rated voltage (Use group D / CSA) 300 V

Rated current (Use group B / CSA) 20 A

Rated current (Use group D / CSA) 20 A

Wire cross-section, AWG, min. AWG 30

Wire cross-section, AWG, max.

Reference to approval values

Specifications are maximum values, details - see approval certificate.

AWG 12

**Rated data acc. to UL 1059**

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059) 300 V

Rated voltage (Use group D / UL 1059) 300 V

Rated current (Use group B / UL 1059) 20 A

Rated current (Use group D / UL 1059) 10 A

Wire cross-section, AWG, min. AWG 26

Wire cross-section, AWG, max. AWG 12

Reference to approval values Specifications are maximum values, details - see approval certificate.

**Packing**

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 350 mm |
| VPE width | 135 mm | VPE height | 30 mm  |

**Classifications**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002638    | ETIM 7.0    | EC002638    |
| ETIM 8.0    | EC002638    | ETIM 9.0    | EC002638    |
| ECLASS 9.0  | 27-44-03-09 | ECLASS 9.1  | 27-44-03-09 |
| ECLASS 10.0 | 27-44-03-09 | ECLASS 11.0 | 27-46-02-02 |
| ECLASS 12.0 | 27-46-02-02 | ECLASS 13.0 | 27-46-02-02 |
| ECLASS 14.0 | 27-46-02-02 |             |             |

**Environmental Product Compliance**

|                        |                             |
|------------------------|-----------------------------|
| REACH SVHC             | /                           |
| RoHS Compliance Status | Compliant without exemption |

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**Technical data****Important note**

|                |   |
|----------------|---|
| IPC conformity | Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.  |
| Notes          | <ul style="list-style-type: none"> <li>• Additional variants on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• P on drawing = pitch</li> <li>• Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.</li> <li>• In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load</li> <li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul> |

**Approvals**

Approvals



|                         |            |
|-------------------------|------------|
| ROHS                    | Conform    |
| UL File Number Search   | UL Website |
| Certificate No. (cURus) | E60693     |

**Downloads**

|   |  |
|---|--|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>  |
| Engineering Data                            | <a href="#">CAD data – STEP</a>  |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>   |
| Brochures                                   | <a href="#">FL DRIVES EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</a><br><a href="#">FL BUILDING SAFETY EN</a><br><a href="#">FL APPL LED LIGHTING EN</a><br><a href="#">FL INDUSTR.CONTROLS EN</a><br><a href="#">FL MACHINE SAFETY EN</a><br><a href="#">FL HEATING ELECTR EN</a><br><a href="#">FL APPL INVERTER EN</a><br><a href="#">FL_BASE_STATION_EN</a><br><a href="#">FL ELEVATOR EN</a><br><a href="#">FL POWER SUPPLY EN</a><br><a href="#">FL 72H SAMPLE SER EN</a><br><a href="#">PO OMNIMATE EN</a><br><a href="#">PO OMNIMATE EN</a> |

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# Drawings

## Product image



## Dimensional drawing



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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Crosshead screwdriver Pozidriv**

Crosshead screwdriver, Pozidriv, SDK PZ DIN 5262, ISO 8764/2-PZ, output to ISO 8764/1-PZ, ChromTop tip, SoftFinish grip

**General ordering data**

|            |                            |                          |
|------------|----------------------------|--------------------------|
| Type       | SDK PZ1                    | Version                  |
| Order No.  | <a href="#">9008530000</a> | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056521              |                          |
| Qty.       | 1 pc(s).                   |                          |

**Crosshead screwdriver Phillips**

Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

**General ordering data**

|            |                            |                          |
|------------|----------------------------|--------------------------|
| Type       | SDK PH1                    | Version                  |
| Order No.  | <a href="#">9008480000</a> | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056477              |                          |
| Qty.       | 1 pc(s).                   |                          |

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**Accessories****Coding elements****Only connects what is supposed to be connected: the right connection at the right place.**

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

**General ordering data**

| Type       | BLZ/SL KO BK BX            | Version  | Product data | Packaging |
|------------|----------------------------|--|--------------|-----------|
| Order No.  | <a href="#">1545710000</a> | PCB plug-in connector, Accessories, Coding element, black, Number of poles: 1  |              | Box       |
| GTIN (EAN) | 4008190087142              |  |              |           |
| Qty.       | 50 pc(s).                  |  |              |           |
| Type       | BLZ/SL KO OR BX            | Version  | Product data | Packaging |
| Order No.  | <a href="#">1573010000</a> | PCB plug-in connector, Accessories, Coding element, orange, Number of poles: 1 |              | Box       |
| GTIN (EAN) | 4008190048396              |  |              |           |
| Qty.       | 100 pc(s).                 |  |              |           |

**Slotted screwdriver**

VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

**General ordering data**

| Type       | SDIS 0.6X3.5X100           | Version                  |
|------------|----------------------------|--------------------------|
| Order No.  | <a href="#">9008390000</a> | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056354              |                          |
| Qty.       | 1 pc(s).                   |                          |



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**Accessories****Strain reliefs****For frequent load changes: the "trailer coupling" for plug-in connectors.**

The strain relief can do more than just relieve the strain on conductors:

Simply clip onto the plug and

- bundle conductors
- guide cables
- use as a connection and disconnection aid

No damage to the connecting points, clear, tidy wiring and easy to handle.

User advantages: permanent heavy-duty connections for harsh industrial environments and convenient operation ensure improved system availability.

**General ordering data**

| Type       | BLZ 5.00 ZE04 OR BX        | Version  | Product data | Packaging |
|------------|----------------------------|--|--------------|-----------|
| Order No.  | <a href="#">1652100000</a> | PCB plug-in connector, Accessories, Strain relief, orange, Number of |              | Box       |
| GTIN (EAN) | 4008190401771              | poles: 4   |              |           |
| Qty.       | 50 pc(s).                  |  |              |           |
| Type       | BLZ 5.00 ZE08 OR BX        | Version  | Product data | Packaging |
| Order No.  | <a href="#">1652040000</a> | PCB plug-in connector, Accessories, Strain relief, orange, Number of |              | Box       |
| GTIN (EAN) | 4008190401719              | poles: 8   |              |           |
| Qty.       | 50 pc(s).                  |  |              |           |

**Slotted screwdriver**

Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

**General ordering data**

| Type       | SDS 0.6X3.5X100            | Version                  |
|------------|----------------------------|--------------------------|
| Order No.  | <a href="#">9008330000</a> | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056286              |                          |
| Qty.       | 1 pc(s).                   |                          |

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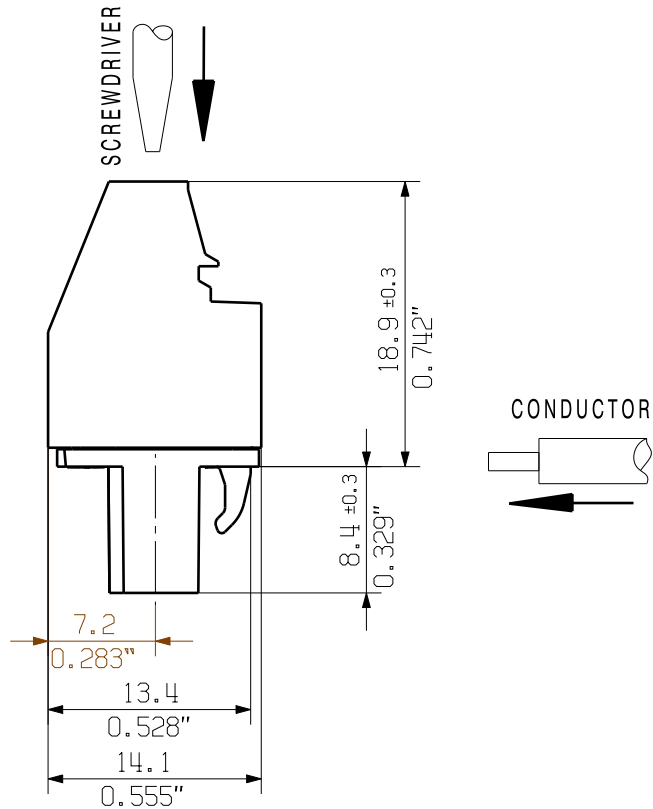
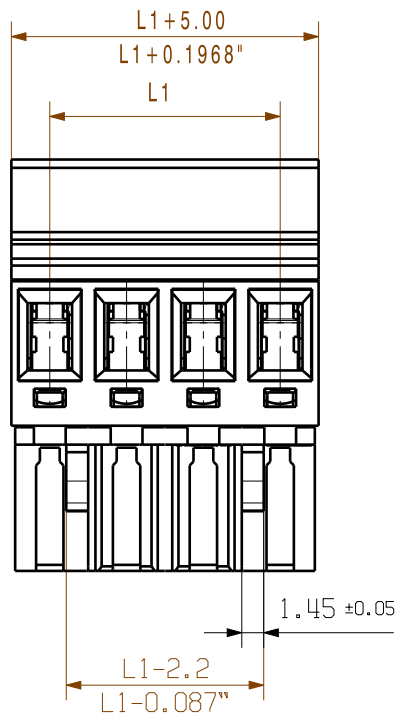
Dimensions without tolerances are no check dimensions

The English version is binding

BLZP 5.00HC/04/270



BLZP 5.00HC/04/90



For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

SHOWN: BLZP 5.00HC/04/90  
BLZP 5.00HC/04/270

P = 5.00 RASTER/PITCH

n = POLZAHL/NO OF POLES

|    |         |           |
|----|---------|-----------|
| 24 | 115,00  | 4,53      |
| 23 | 110,00  | 4,33      |
| 22 | 105,00  | 4,13      |
| 21 | 100,00  | 3,94      |
| 20 | 95,00   | 3,74      |
| 19 | 90,00   | 3,54      |
| 18 | 85,00   | 3,35      |
| 17 | 80,00   | 3,15      |
| 16 | 75,00   | 2,95      |
| 15 | 70,00   | 2,76      |
| 14 | 65,00   | 2,56      |
| 13 | 60,00   | 2,36      |
| 12 | 55,00   | 2,17      |
| 11 | 50,00   | 1,97      |
| 10 | 45,00   | 1,77      |
| 9  | 40,00   | 1,57      |
| 8  | 35,00   | 1,38      |
| 7  | 30,00   | 1,18      |
| 6  | 25,00   | 0,98      |
| 5  | 20,00   | 0,79      |
| 4  | 15,00   | 0,59      |
| 3  | 10,00   | 0,39      |
| 2  | 5,00    | 0,20      |
| n  | L1 [mm] | L1 [inch] |

|                                      |  |                                 |            |            |   |
|--------------------------------------|--|---------------------------------|------------|------------|---|
| GENERAL TOLERANCE:<br>DIN ISO 2768-m |  | 99339/0<br>19.02.18 HERTEL_S 01 |            | Cat.no.: . |   |
| RoHS COMPLIANT                       |  | Modification                    |            | Weidmüller |   |
| Scale: 2:1                           |  | Drawn                           | 19.02.2018 | HERTEL_S   | BLZP 5.00HC/./90/270<br>BUCHSENLEISTE<br>SOCKET BLOCK |
| Supersedes: .                        |  | Responsible                     |            | HERTEL_S   |   |
|                                      |  | Checked                         | 26.02.2018 | HELIS_MA   |   |
|                                      |  | Approved                        |            | LANG_T     | Product file: BLZP 5.0X WG                            |

|                       |              |
|-----------------------|--------------|
| 3 42481 06            |              |
| Drawing no. Issue no. |              |
| Sheet 01              | of 04 sheets |